CLAIMS

1.   A method for reproducing a video signal, comprising the steps of:

receiving the video signal at a reproducing device via a satellite communication link;

detecting copy management information that has been appended to the video signal; and

providing a copy permission indicator in the received video signal by generating a protect code signal based on said copy management information, said protect code signal having plural coded bits and being operable to indicate a generation limitation on copying of the video signal, and arraying said protect code signal at a pre-set position in the video signal.

2.   The method according to claim 1, wherein said protect code signal includes two bits of information, each having distinct significance and together identifying various copy permission states.

3.   The method according to claim 2, wherein said two bit protect code signal is indicative of at least three copy

permission states: copying is permitted without restriction, one generation of copying is permitted, and no copying is permitted.

4.   The method according to claim 1, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal is encoded in the vertical blanking interval of the video signal at line 20 of a field.

5.   The method according to claim 1, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal is encoded in the vertical blanking interval of the video signal at line 21 of a field.

6.   The method according to claim 1, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal includes two bits of information, each having distinct significance and together identifying various copy permission states, said protect code signal is encoded in the vertical blanking interval of the video signal at line 20, and a logical "1" of said protect code signal is represented by a level of about 50-IRE and a logical "0" of said protect code signal is

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represented by a level of about 0-IRE.

7.   The method according to claim 1, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal includes two bits of information, each having distinct significance and together identifying various copy permission states, said protect code signal is encoded in the vertical blanking interval of the video signal at line 21, and a logical "1" of said protect code signal is represented by a level of about 70-IRE and a logical "0" of said protect code signal is represented by a level of about 0-IRE.

8.   The method according to claim 1, further comprising the steps of:

        detecting charging information in the received video signal; and

        transmitting said charging information to a billing center.

9.   The method according to claim 1, further comprising the steps of:

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transmitting account status information from a billing center to said reproducing device; and

controlling reproduction of the video signal according to said account status information.

10.   The method according to claim 9, wherein said step of controlling reproduction involves disabling the arraying of said protect code signal in the video signal.

11.   A method for reproducing a video signal of the type having a vertical blanking interval and sync pulses, comprising the steps of:

receiving the video signal at a reproducing device via a satellite communication link;

detecting copy management information that has been appended to the video signal;

generating a copy protection signal based on said copy management information; and

inserting said copy protection signal into the video signal by arraying a multiple of pseudo-sync pulses in the vertical blanking interval of the video signal, said pseudo-sync

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pulses having an amplitude approximately equal to the amplitude of the video signal sync pulses, and arraying a multiple of automatic gain control (AGC) pulses in the vertical blanking interval of the video signal.

12.   The method according to claim 11, wherein the duration of said AGC pulses is approximately 3.0 microseconds.

13.   The method according to claim 11, wherein the video signal exhibits a peak white amplitude, and wherein the amplitude of said AGC pulses is approximately slightly greater than the peak white amplitude.

14.   The method according to claim 11, wherein said pseudo-sync and AGC pulses are inserted on lines 1 to 17 and 273 to 280 of the vertical blanking interval of the video signal.

15.   The method according to claim 11, wherein said pseudo-sync pulses have a duration of approximately 2.2 microseconds.

16.   The method according to claim 11, wherein the video

signal includes color burst signals of particular phase, and further comprising the step of modifying the phase of at least a portion of selected color burst signals of the video signal.

17.   The method according to claim 16, wherein the steps of arraying said pseudo-sync pulses, arraying said AGC pulses and modifying the phase are performed for two successive lines of every 17 lines of the vertical blanking interval beginning at line 30 in field 1 and at line 301 in field 2.

18.   The method according to claim 16, wherein the operations of arraying said pseudo-sync pulses, arraying said AGC pulses and modifying the phase are performed for four successive lines of every 21 lines of the vertical blanking interval beginning at line 24 in field 1 and at line 297 in field 2.

19.   The method according to claim 11, further comprising the steps of:

          detecting charging information in the received video signal; and

          transmitting said charging information to a billing

center.

20.   The method according to claim 11, further comprising the steps of:

transmitting account status information from a billing center to said reproducing device; and

controlling reproduction of the video signal according to said account status information.

21.   The method according to claim 20, wherein said step of controlling reproduction involves disabling the inserting of said copy protection signal into the video signal.

22.   A method for reproducing a video signal of the type having a vertical blanking interval, comprising the steps of:

receiving the video signal at a reproducing device via a satellite communication link;

detecting copy management information that has been appended to the video signal in the form of a multiple of trigger bits; and

providing copy protection in the video signal by

arraying a multiple of pseudo-sync pulses and a multiple of automatic gain control (AGC) pulses in the vertical blanking interval of the video signal when said trigger bits indicate that copying should be inhibited.

23. The method according to claim 22, wherein the video signal includes color burst signals of particular phase, and wherein when said trigger bits indicate that color burst modification should be performed, the phase of at least a portion of selected color burst signals of the video signal is modified.

24. The method according to claim 22, wherein said trigger bits are only operable when copyright subsists in the video signal.

25. The method according to claim 22, wherein said trigger bits are encoded in the vertical blanking interval of the video signal at line 20 of field 1 and line 20 of field 2.

26. The method according to claim 25, wherein said trigger bits are bits 9 and 10 of word 2 in a 20 bit digital signal.

27.   The method according to claim 22, further comprising
the steps of:

        detecting charging information in the received video
signal; and

        transmitting said charging information to a billing
center.

28.   The method according to claim 22, further comprising
the steps of:

        transmitting account status information from a billing
center to said reproducing device; and

        controlling reproduction of the video signal according
to said account status information.

29.   The method according to claim 28, wherein said step of
controlling reproduction involves disabling the arraying a
multiple of pseudo-sync pulses and a multiple of automatic gain
control pulses in the vertical blanking interval of the video
signal.

30.   An apparatus for reproducing a video signal,

comprising:

        means for receiving the video signal at a reproducing

device via a satellite communication link;

        means for detecting copy management information that

has been appended to the video signal; and

        means for providing a copy permission indicator in the

received video signal by generating a protect code signal based

on said copy management information, said protect code signal

having plural coded bits and being operable to indicate a

generation limitation on copying of the video signal, and

arraying said protect code signal at a pre-set position in the

video signal.

31.   The apparatus according to claim 30, wherein said

protect code signal includes two bits of information, each having

distinct significance and together identifying various copy

permission states.

32.   The apparatus according to claim 31, wherein said two

bit protect code signal is indicative of at least three copy

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permission states: copying is permitted without restriction, one generation of copying is permitted, and no copying is permitted.

33.   The apparatus according to claim 30, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal is encoded in the vertical blanking interval of the video signal at line 20 of a field.

34.   The apparatus according to claim 30, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal is encoded in the vertical blanking interval of the video signal at line 21 of a field.

35.   The apparatus according to claim 30, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal includes two bits of information, each having distinct significance and together identifying various copy permission states, said protect code signal is encoded in the vertical blanking interval of the video signal at line 20, and a logical "1" of said protect code signal is represented by a level of about 50-IRE and a logical "0" of said protect code signal is

represented by a level of about 0-IRE.

36.   The apparatus according to claim 30, wherein the video signal includes a vertical blanking interval, and wherein said protect code signal includes two bits of information, each having distinct significance and together identifying various copy permission states, said protect code signal is encoded in the vertical blanking interval of the video signal at line 21, and a logical "1" of said protect code signal is represented by a level of about 70-IRE and a logical "0" of said protect code signal is represented by a level of about 0-IRE.

37.   The apparatus according to claim 30, further comprising:

        means for generating charging information based on the received video signal; and

        means for transmitting said charging information to a billing center.

38.   The apparatus according to claim 30, further comprising:

means for transmitting account status information from a billing center to said reproducing device; and

means for controlling reproduction of the video signal according to said account status information.

39.   The apparatus according to claim 38, wherein said means for controlling comprises means for disabling the arraying of said protect code signal in the video signal.

40.   An apparatus for reproducing a video signal of the type having a vertical blanking interval and sync pulses, comprising:

means for receiving the video signal at a reproducing device via a satellite communication link;

means for detecting copy management information that has been appended to the video signal;

means for generating a copy protection signal based on said copy management information; and

means for inserting said copy protection signal into the video signal by arraying a multiple of pseudo-sync pulses in the vertical blanking interval of the video signal, said pseudo-sync pulses having an amplitude approximately equal to the

amplitude of the video signal sync pulses, and arraying a multiple of automatic gain control (AGC) pulses in the vertical blanking interval of the video signal.

41.   The apparatus according to claim 40, wherein the duration of said AGC pulses is approximately 3.0 microseconds.

42.   The apparatus according to claim 40, wherein the video signal exhibits a peak white amplitude, and wherein the amplitude of said AGC pulses is approximately slightly greater than the peak white amplitude.

43.   The apparatus according to claim 40, wherein said pseudo-sync and AGC pulses are inserted on lines 1 to 17 and 273 to 280 of the vertical blanking interval of the video signal.

44.   The apparatus according to claim 40, wherein said pseudo-sync pulses have a duration of approximately 2.2 microseconds.

45.   The apparatus according to claim 40, wherein the video

signal includes color burst signals of particular phase, and

further comprising means for modifying the phase of at least a

portion of selected color burst signals of the video signal.

46.   The apparatus according to claim 45, wherein the

operations of arraying said pseudo-sync pulses, arraying said AGC

pulses and modifying the phase are performed for two successive

lines of every 17 lines of the vertical blanking interval

beginning at line 30 in field 1 and at line 301 in field 2.

47.   The apparatus according to claim 45, wherein the

operations of arraying said pseudo-sync pulses, arraying said AGC

pulses and modifying the phase are performed for four successive

lines of every 21 lines of the vertical blanking interval

beginning at line 24 in field 1 and at line 297 in field 2.

48.   The apparatus according to claim 40, further

comprising:

        means for generating charging information based on the

received video signal; and

        means for transmitting said charging information to a

billing center.

49.   The apparatus according to claim 40, further

comprising:

means for transmitting account status information from

a billing center to said reproducing device; and

means for controlling reproduction of the video signal

according to said account status information.

50.   The apparatus according to claim 49, wherein said means

for controlling comprises means for disabling the inserting of

said copy protection signal into the video signal.

51.   An apparatus for reproducing a video signal of the type

having a vertical blanking interval, comprising:

means for receiving the video signal at a reproducing

device via a satellite communication link;

means for detecting copy management information that

has been appended to the video signal in the form of a multiple

of trigger bits in the video signal; and

means for arraying a multiple of pseudo-sync pulses and

a multiple of automatic gain control pulses in the video signal when said trigger bits indicate that copying should be inhibited.

52.   The apparatus according to claim 51, wherein the video signal includes color burst signals of particular phase, and wherein when said trigger bits indicate that color burst modification should be performed, the phase of at least a portion of selected color burst signals of the video signal is modified.

53.   The apparatus according to claim 51, wherein said trigger bits are only operable when copyright subsists in the video signal.

54.   The apparatus according to claim 51, wherein said trigger bits are encoded in the vertical blanking interval of the video signal at line 20 of field 1 and line 20 of field 2.

55.   The apparatus according to claim 54, wherein said trigger bits are bits 9 and 10 of word 2 in a 20 bit digital signal.

56.   The apparatus according to claim 51, further

comprising:

        means for generating charging information based on the

received video signal; and

        means for transmitting said charging information to a

billing center.

57.   The apparatus according to claim 51, further

comprising:

        means for transmitting account status information from

a billing center to said reproducing device; and

        means for controlling reproduction of the video signal

according to said account status information.

58.   The method according to claim 57, wherein said means

for controlling comprises means for disabling the arraying a

multiple of pseudo-sync pulses and a multiple of automatic gain

control pulses in the vertical blanking interval of the video

signal.

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